

TYPE 2000 DUPLICATING FILM

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TYPE 2000 DUPLICATING FILMS

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DRY PROCESSED

NON SILVER

VARIABLE GAMMA

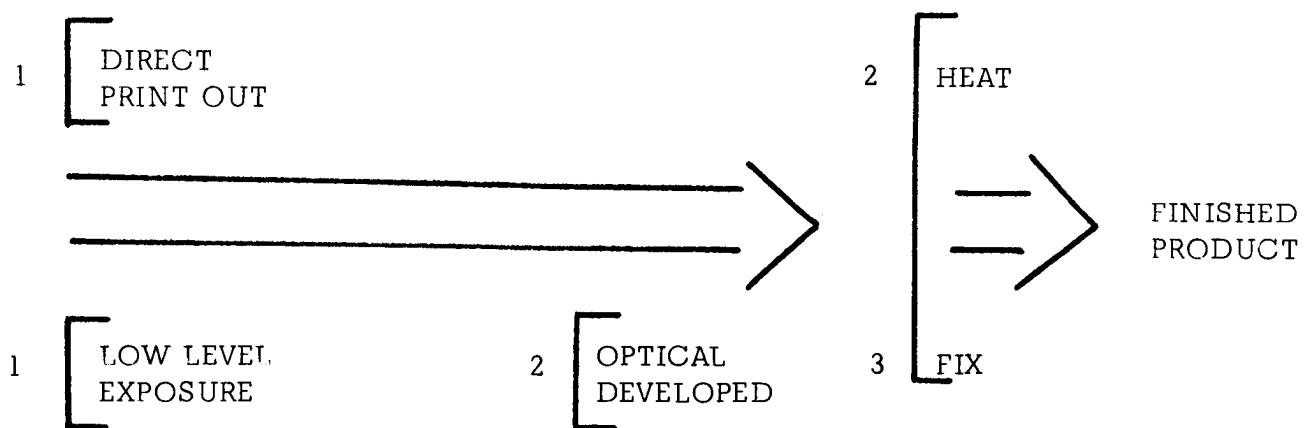
NEGATIVE WORKING

HIGH RESOLUTION

DIRECT PRINT OUT

OPTICAL DEVELOPED

PROCESSING METHODS



AERIAL DUPLICATION FILM

DESIRED SPECIFICATIONS

(WHEN USED AS A MASTER POSITIVE PRINTED
FROM THE ORIGINAL SILVER NEGATIVE)

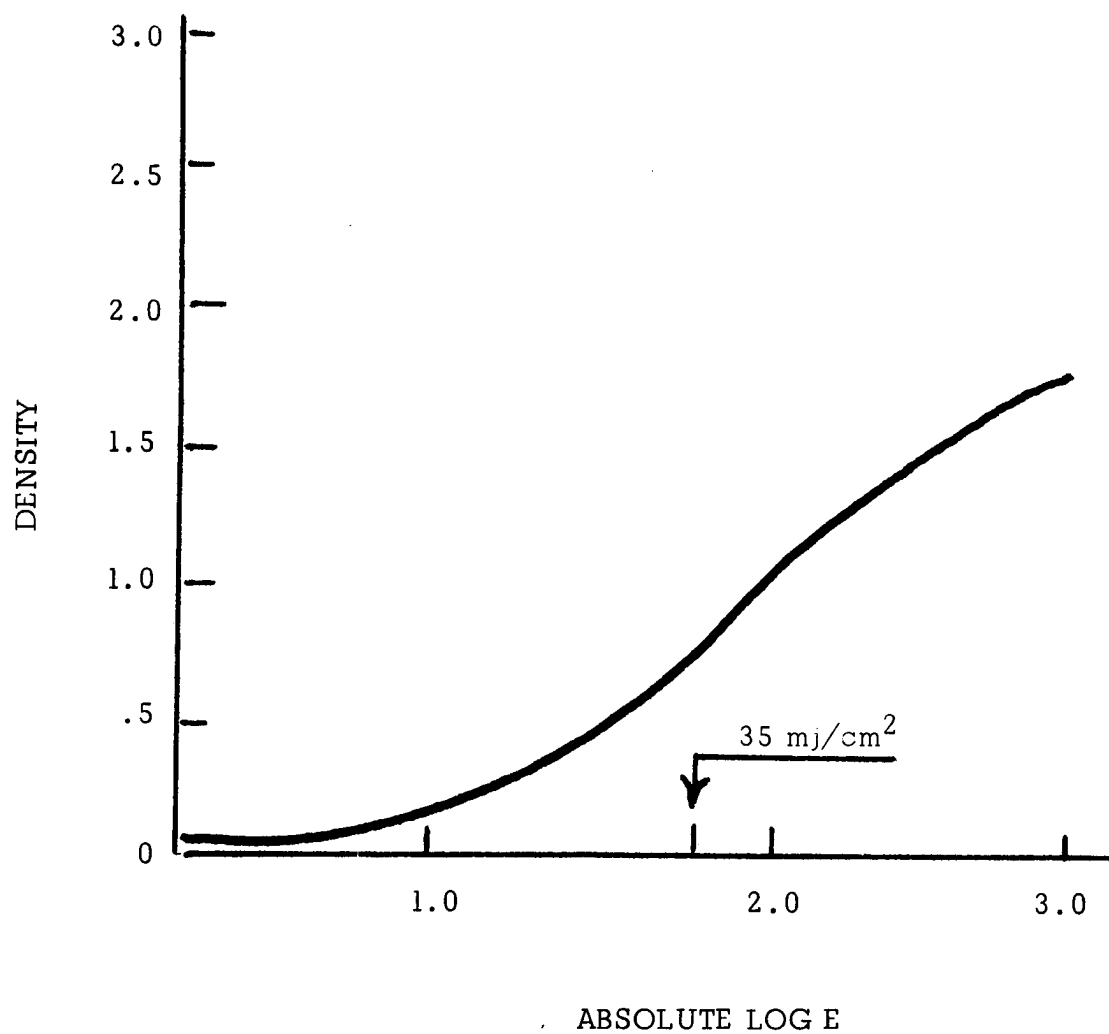
VARIABLE GRADIENT	.85 to 2.0
BASE + FOG	.25 or LESS
USEFUL LOG e SCALE	VARIABLE
RESOLUTION (LOW CONTRAST)	$> 600 \text{ Lp/MM}$
DENSITY UNIFORMITY	$\pm 2.5\%$
IMAGE COLOR	BLUE
SENSITIVITY - EXPOSURE	$< 100 \text{ mj/cm}^2$ to D=1.0 ABOVE BASE + FOG
SPECTRAL RESPONSE	360 to 550 nm
SHELF LIFE	1 Year at 40°F
BASE MATERIAL	POLYESTER-3 or 5 Mil, HEAT STABILIZED
PHYSICAL QUALITY	NO STREAKS, SCRATCHES, FOREIGN MATTER OR VOIDS

DIRECT PRINT OUT

d log e CURVE

NIAGARA WIDE FILM DUPLICATOR

(70 MM CONVERSION) at 26' PER MINUTE



21 STEP EK No. 2 SILVER WEDGE

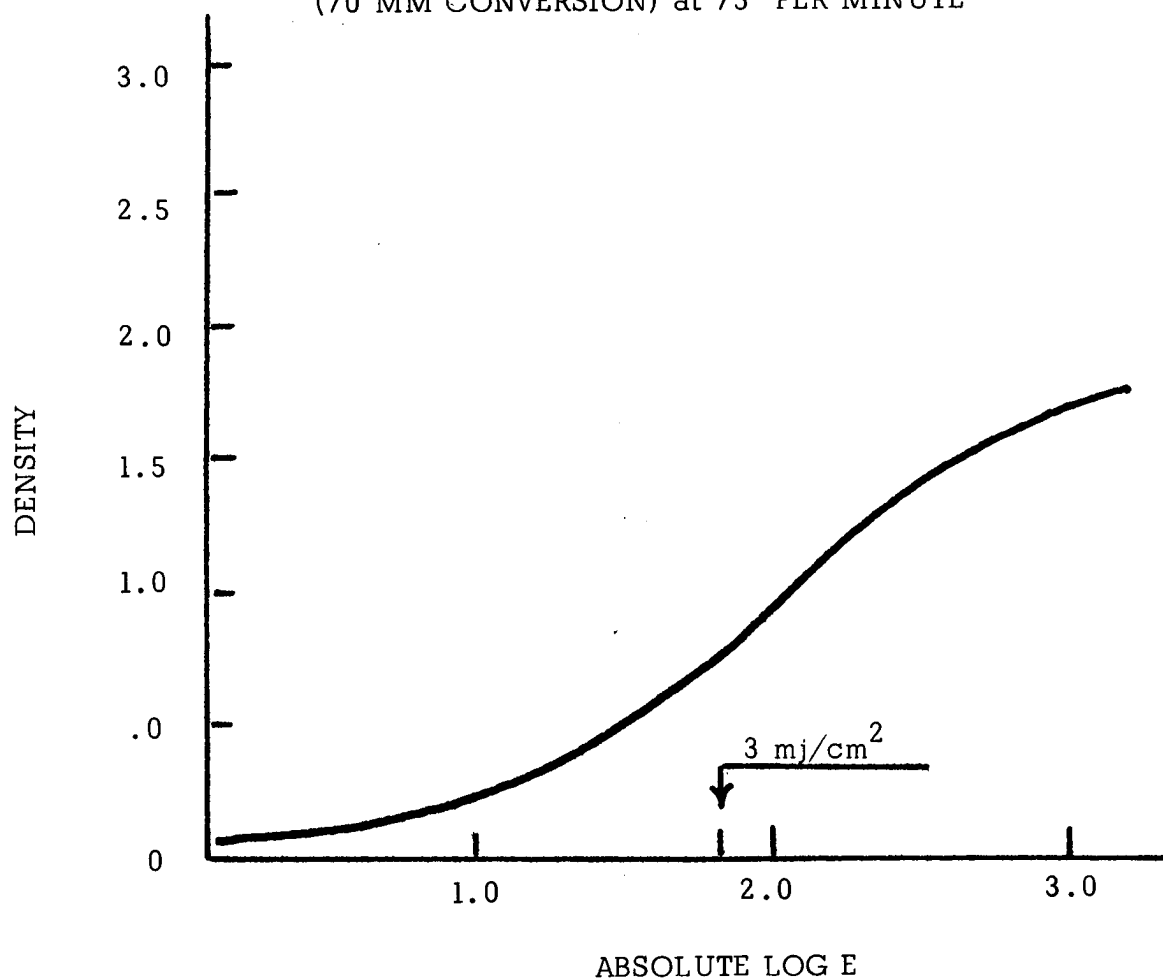
FIXED 170°C 90SEC.

OPTICAL DEVELOPMENT

d log e CURVE

NIAGARA WIDE FILM DUPLICATOR

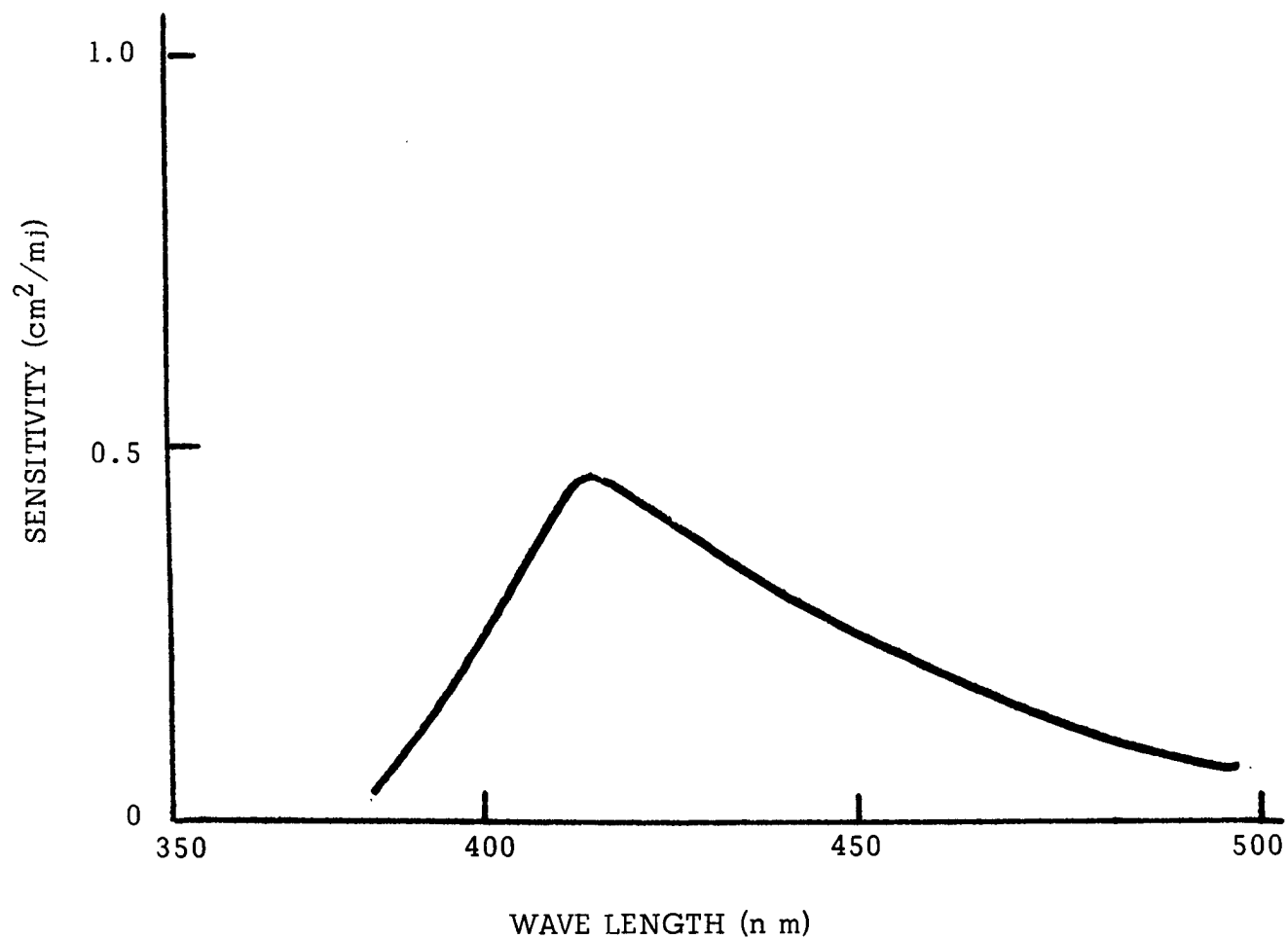
(70 MM CONVERSION) at 75' PER MINUTE



21 STEP NO. 2 SILVER WEDGE

FIXED 170°C, 90 SEC.

SPECTRAL SENSITIVITY CURVE



GAMMA CONTROL

DIRECT PRINT OUT

VARYING FIXING TEMPERATURE AND/OR TIME PROVIDES
GAMMA .85 - 2.0.

OPTICAL DEVELOPED

VARYING PLATEN TEMPERATURE DURING DEVELOPMENT
PROVIDES GAMMA .85 - 2.0, ADDITIONAL GAMMA
AVAILABLE DURING HEAT FIXING, IF DESIRED.

RESOLUTION

(STATIC CONTACT UNDER CONTROLLED CONDITIONS
IN MILITARY SYSTEMS HIGH RESOLUTION TEST CAMERA)

> 1500 CYCLES PER MM AFTER PROCESSING (DIRECT PRINT OUT AND
HEAT FIXING).

STANDARD USAF 1951 $6\sqrt{2}$ RESOLVING POWER TEST TARGET,
228 CYCLES PER MM, HIGH CONTRAST: DENSITY DIFFERENCE 2.0,
CONTRAST 100:1.

REDUCTION RATIO 20X.

WITH 1.6:1 CONTRAST TARGET
> 800 CYCLES PER MM.

DYNAMIC RESOLUTION COMPARISONS

(70 MM MODIFIED NIAGARA) AT 10' PER MINUTE

WITH TARGET BELT (POSITIVE)

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CALIBRATED BY WESTOVER WITH A TOC OF 40:1

10' PER MINUTE

EASTMAN KODAK TYPE 2430 FILM PROCESSED DK 50 3 MINUTES
@ 70°F HAND TRAY AVERAGE RESOLUTION. . . . 171 CYCLES/MM

TYPE 2000 FILM. 460 CYCLES/MM

STAT

5' PER MINUTE

EASTMAN KODAK TYPE 2430 FILM. 410 CYCLES/MM

TYPE 2000 FILM. 646 CYCLES/MM

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WITH A BACK COATING THE RESOLUTION OF
TYPE 2000 FILM AT 5' PER MINUTE WENT TO 820 CYCLES/MM
AT SAME CONTRAST.

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PHYSICAL CHARACTERISTICS

RECIPROCITY FAILURE


NONE OVER AN EXPOSURE RANGE FROM
 10^{-8} TO 100 SECONDS.

IMAGE DECAY - NO FIXING

1/2 LIFE TESTING

INCREASED D_{MAX} AND GAMMA,
BASE FOG REMAINS ESSENTIALLY THE SAME
AFTER 9 MONTHS ROOM STORAGE.

STORAGE LIFE AND IMAGE STABILITY

PRE-EXPOSURE  REFRIGERATED OVER 1 YEAR
ROOM TEMPERATURE 9-12 MONTHS

AFTER FIXING, IMAGE PERMANENCE 30X DIAZO SYSTEMS.

DYNAMIC SYSTEMS

PRESENT

16/35 CONTINUOUS HEAT FIXER

QC MODEL 104 OPTICAL PROCESSOR

NIAGARA 70 MM MODIFICATION KIT

3M HEAT PROCESSOR

PLANNED

9-1/2" CONTINUOUS HEAT FIXER

9-1/2" NIAGARA

FILM AVAILABILITY

(TALBOYS 15" WEB EXPERIMENTAL COATER)

SINGLE SHIFT: 2,500,000 SQ. FT./YEAR

DOUBLE SHIFT: 5,000,000 SQ. FT./YEAR

ALL COATING IN CLASS 100 CLEAN ROOM

STANDARD ROLL SIZES: 16MM, 35MM, 70MM,
105 MM, 5", 6.6", 9.5"

PRICE PER SQ. FT. \$3 (TEST ORDER MATERIAL)

STATUS

LIMITED PRODUCTION RUNS UNDERWAY

DELIVERIES BEING MADE ON MILITARY FILM CONTRACT

INITIAL DELIVERY MADE OF MODEL 104 QUALITY CONTROL
OPTICAL PROCESSOR

PROTOTYPE OF 70 MM NIAGARA MODIFICATION KIT COMPLETED



STAT

16/35 MM CONTINUOUS HEAT FIXER



STAT

70 MM NIAGARA MODIFICATION KIT